

ABSTRACT OF THE DISCLOSURE

Articles and processes are provided whereby flame-retardant SAP particles are incorporated into synthetic resins, especially curable thermosettable resins. The SAP particles are most preferably hydrated with an aqueous flame-retardant solution. In this regard, the flame-retardant solution may consist essentially of water alone or a water solution containing one or more water soluble inorganic flame retardants. When SAP particles are hydrated with an aqueous inorganic flame retardant solution, the SAP particles may thereafter be dried to remove substantially the water component. In such a manner, the inorganic flame retardant will remain as a dried residue physically entrained within the SAP particles. As such, the SAP particles serve as a physical matrix in which the inorganic flame retardant is homogenously dispersed. The SAP particles may then be blended with a synthetic resin as is or alternatively may be ground into more finely divided particles which contain the dried residue of the aqueous inorganic flame retardant solution and then blended with a suitable synthetic resin.